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RADIOLOGICAL CONTINGENCY PLANNING FOR THE MARS SCIENCE LABORATORY LAUNCH

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Purpose: Scheduled to launch in the fall of 2009 is the Mars Science Laboratory, which is part of NASA's Mars Exploration Program. The Mars Science Laboratory rover will carry a radioisotope power system that generates electricity from the heat of plutonium's radioactive decay. National Security Technologies, LLC (NSTec), based in Las Vegas, NV, will support the U.S. Department of Energy in its role for managing the overall radiological contingency planning support effort.

Methods and Materials: This talk will focus on new technologies that NSTec is developing to enhance the overall response capability that would be required for a highly unlikely anomaly. This paper presents recent advances in collecting and collating data transmitted from deployed teams and sensors. NSTec is responsible for preparing the contingency planning for a range of areas from monitoring and assessment, sample collection and control, contaminated material release criteria, data management, reporting, recording, and even communications. The tools NSTec has available to support these efforts will be reported.

Results: NSTec developed these tools and methods for the U.S. Department of Energy Consequence Management Response mission. NSTec has successfully deployed them at national exercises such as Top Officials Exercise IV (TOPOFF IV). This paper briefly reviews their use at national exercises.

Conclusions: These assets and contingency planning will provide the required response posture for an anomaly event during (or after) launch that involves radiological consequences.

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